

WSDOT Fish Passage Barriers Invented as of March 2006

Site Id	WSDOT District	Road	Mile Post	Stream	Tributary to	WRIA	Feature Type	Fishway attached to the Feature	% Fish Pass	Significant Reach (>200 m)	PI	Culvert No.	Shape	Material	Span (m)	Rise (m)	Length (m)	Bed Material Present	Water Surface Difference Drop (m)	Slope	Road Fill Depth (m)
992045	North Central	97AR	220.76	Byrd Canyon Cr	Columbia R	46.0380	Culvert	No	0	Yes	6.33	1.1 RND	PCC	PCC	0.80	1.40	48.35	No	0.00	3.26	9.00
992043	North Central	97AR	222.02	Oklahoma Gulch	Columbia R	47.0002	Culvert	No	0	Yes	6.33	2.2 RND	PCC	PCC	1.40	1.40	44.34	Unk	0.00	3.87	2.74
992043	North Central	97AR	222.02	Oklahoma Gulch	Columbia R	47.0002	Culvert	No	0	Yes	6.33	1.2 RND	PCC	PCC	1.40	1.40	44.34	Unk	0.00	3.99	2.74
993416	North Central	SR 153	7.62	Squaw Cr	Methow R	48.0043	Culvert	No	0	Yes	4.94	1.1 BOX	CPC	CPC	1.22	1.22	27.63	No	1.35	0.76	4.00
993423	North Central	SR 153	24.30	Lecher Canyon Cr	Methow R	48.0265	Culvert	No	0	Yes	3	1.1 RND	PCC	PCC	0.45	0.45	42.00	No	0.00		2.00
993992	North Central	SR 155	60.76	Onak Cr	Okanogan R	49.0138	Culvert	No	67	Yes	6.47	2.2 RND	PCC	PCC	0.91	0.91	16.90	No	0.37	1.70	2.00
993992	North Central	SR 155	60.76	Onak Cr	Okanogan R	49.0138	Culvert	No	67	Yes	6.47	1.2 RND	PCC	PCC	1.22	1.22	19.60	Yes	0.00	1.80	2.00
993993	North Central	SR 155	60.92	Trail Cr	Onak Cr	49.0179	Culvert	No	33	Yes	9.42	1.1 RND	PCC	PCC	1.22	1.22	17.30	No	0.00	2.10	2.00
993995	North Central	SR 155	62.41	Unamed	Onak Cr	49.0173	Culvert	No	0	Yes	3.48	1.1 RND	PCC	PCC	0.91	0.91	33.59	No	0.00	0.80	4.50
993997	North Central	SR 155	65.05	Clark Cr	Onak Cr	49.0160	Culvert	No	0	Yes	6.49	1.1 RND	CST	CST	0.76	0.76	34.30	No	0.42	3.23	3.50
993998	North Central	SR 155	65.59	Swimptkin Cr	Onak Cr	49.0160	Culvert	No	0	Yes	10.85	1.1 RND	CST	CST	0.91	0.91	21.18	No	0.19	3.29	2.50
992845	North Central	SR 155	66.94	Stapaloo Cr	Onak Cr	49.0152	Culvert	No	33	Yes	9.58	1.1 RND	CST	CST	1.90	1.90	45.51	No	0.46	2.30	7.00
994008	North Central	SR 155	71.10	Foley Cr	Onak Cr	49.0143	Culvert	No	33	Unknown		1.1 RND	CST	CST	0.61	0.61	20.91	No	0.00	2.06	1.00
994028	North Central	SR 155	75.81	Mission Cr	Onak Cr	49.0139	Culvert	No	0	Yes	6.67	1.1 BOX	CPC	CPC	2.45	2.45	42.89	No	1.02	9.20	8.00
991582	North Central	SR 17	126.50	Unamed	Foster East Cr	50	Culvert	No	0	Unknown		1.1 RND	CST	CST	1.22	1.22	36.58	Unk	0.15	1.00	
990153	North Central	SR 17	131.30	Unamed	Columbia R	50	Culvert	No	0	Unknown		1.1 BOX	PCC	PCC	1.37	1.22	21.93	Unk	1.37	2.00	
990154	North Central	SR 17	132.10	Unamed	Columbia R	50	Culvert	No	0	Unknown		1.1 BOX	PCC	PCC	1.22	1.22	22.23	Unk	0.61	2.00	
994050	North Central	SR 173	11.80	Swamp Cr	Columbia R	49.0002	Culvert	No	67	Yes		2.2 RND	CST	CST	1.52	1.52	28.20	Yes	0.56	0.60	2.30
994050	North Central	SR 173	11.80	Swamp Cr	Columbia R	49.0002	Culvert	No	67	Yes		1.2 RND	CST	CST	1.52	1.52	28.10	No	0.37	0.80	2.30
997436	North Central	SR 20	148.43	Unamed	Granite Cr	04	Culvert	No	0	Yes		1.1 RND	CST	CST	1.07	1.07	27.76	No	0.35	20.93	6.50
997437	North Central	SR 20	149.42	Unamed	Granite Cr	04	Culvert	No	0	Yes		1.1 RND	CST	CST	0.99	0.99	43.95	No	0.00	13.95	11.00
997438	North Central	SR 20	150.02	Unamed	Granite Cr	04	Culvert	No	0	Yes		1.1 RND	CST	CST	1.14	1.14	26.92	No	0.00	10.88	5.00
997439	North Central	SR 20	150.13	Unamed	Unamed	04	Culvert	No	0	Yes		1.1 RND	CST	CST	1.07	1.07	36.30	No	1.50	5.76	4.50
997441	North Central	SR 20	151.27	Unamed	Granite Cr	04	Culvert	No	0	Yes		1.1 RND	CST	CST	0.61	0.61	21.14	No	0.30	7.71	2.50
997442	North Central	SR 20	151.66	Unamed	Granite Cr	04.2413	Culvert	No	33	Yes		1.1 RND	CST	CST	0.91	0.91	24.54	No	0.00	5.13	2.00
997443	North Central	SR 20	152.03	Unamed	Granite Cr	4	Culvert	No	33	No		1.1 RND	CST	CST	0.76	0.76	26.69	No	0.00	2.53	1.00
997445	North Central	SR 20	152.46	Unamed	Granite Cr	04	Culvert	No	0	No		1.1 RND	CST	CST	0.91	0.91	26.69	No	1.00	8.74	4.00
997448	North Central	SR 20	153.71	Swamp Cr	Granite Cr	04.2429	Culvert	No	0	Yes		1.1 ELL	CST	CST	2.55	2.97	35.65	No	1.85	8.16	2.50
997453	North Central	SR 20	154.67	Unamed	Granite Cr	04	Culvert	No	0	No		1.1 RND	CST	CST	1.52	1.52	30.29	No	0.65	0.92	1.50
997114	North Central	SR 20	156.30	Porcupine Cr	Granite Cr	04.2453	Culvert	No	0	Yes		2.2 ELL	CST	CST	1.32	1.63	31.25	No	1.45	10.90	3.00
997114	North Central	SR 20	156.30	Porcupine Cr	Granite Cr	04.2453	Culvert	No	0	Yes		1.1 RND	CST	CST	1.32	1.63	30.38	No	0.60	11.20	3.00
997575	North Central	SR 20	156.81	Unamed	Granite Cr	04	Culvert	No	0	No		1.1 RND	CST	CST	1.07	1.07	25.97	No	0.60	4.47	3.50
997576	North Central	SR 20	156.86	Unamed	Unamed	04	Culvert	No	0	No		1.1 RND	CST	CST	1.07	1.07	31.83	No	0.20	14.30	6.50
993055	North Central	SR 20	163.61	Unamed	Early Winters Cr	48	Culvert	No	0	No		1.1 RND	CST	CST	1.22	1.22	81.94	No	2.05	14.40	7.00
990342	North Central	SR 20	168.25	Pine Cr	Early Winters Cr	48.1528	Culvert	No	0	Yes	5.44	1.1 SQSH	SPS	SPS	3.47	2.24	19.33	No	0.80	4.91	1.50
993163	North Central	SR 20	168.30	Unamed	Early Winters Cr	48.0000	Culvert	No	0	No		1.1 RND	CST	CST	0.91	0.91	22.34	No	0.47	7.21	5.00
993171	North Central	SR 20	169.31	Unamed	Early Winters Cr	48.0000	Culvert	No	0	No		1.1 RND	CST	CST	0.76	0.76	19.24	No	0.75	7.54	3.00
993179	North Central	SR 20	170.73	Silver Star Cr	Early Winters Cr	48.0000	Culvert	No	0	No		1.1 ARCH	SPS	SPS	2.48	1.80	37.81	No	0.00	10.55	1.00
993184	North Central	SR 20	171.97	Unamed	Early Winters Cr	48	Culvert	No	0	No		1.1 RND	CST	CST	1.22	1.22	27.10	No	0.00	18.50	5.00
990468	North Central	SR 20	173.16	Varden Cr	Early Winters Cr	48.1479	Culvert	No	0	Yes	4.66	1.1 SQSH	SPS	SPS	5.50	2.38	31.10	No	0.10	10.40	5.00
993207	North Central	SR 20	174.98	Pekin Cr	Early Winters Cr	48	Culvert	No	0	Yes	3.05	1.1 SQSH	SPS	SPS	2.32	1.66	19.64	No	0.32	5.50	2.00
990228	North Central	SR 20	181.34	Little Boulder Cr	Methow R	48.1400	Culvert	Yes	0	Yes	15.67	1.1 SQSH	SPS	SPS	2.72	1.89	25.95	No		3.50	
993230	North Central	SR 20	185.93	Boest Canyon Cr	Diversion Ditch	48	Culvert	No	0	Yes	4.93	1.1 RND	CST	CST	0.61	0.61	25.80	No	0.42	10.30	2.00
980378	North Central	SR 20	188.17	Unamed	Methow R	48	Culvert	No	33	Yes	7.72	1.1 SQSH	CST	CST	0.91	0.91	24.37	No	0.00	3.25	2.44
980114	North Central	SR 20	205.84	Beaver Cr	Methow R	48.0307	Culvert	No	67	Yes	43.61	2.2 RND	CAL	CAL	1.22	1.22	15.16	No	0.15	0.81	4.57
980114	North Central	SR 20	205.84	Beaver Cr	Methow R	48.0307	Culvert	No	67	Yes	43.61	1.2 BOX	CPC	CPC	1.83	1.83	15.00	No	0.00	0.67	4.57
980124	North Central	SR 20	206.83	Frazer Cr	Beaver Cr	48.0309	Culvert	No	67	Yes	19.05	1.2 RND	CST	CST	0.91	0.91	12.29	No	0.18	1.55	
980124	North Central	SR 20	206.83	Frazer Cr	Beaver Cr	48.0309	Culvert	No	67	Yes	19.05	2.2 RND	SPS	SPS	0.91	0.91	12.21	No	0.18	1.82	

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WSDOT Fish Passage Barriers Invented as of March 2006

WSDOT Site Id	WSDOT District	Road	Mile Post	Stream	Tributary to	WRIA	Feature Type	Fishway attached to the Feature	% Fish Pass	Significant Reach (>200 m)	PI	Culvert No.	Shape	Material	Span (m)	Rise (m)	Length (m)	Bed Material Present	Water Surface Drop (m)	Slope	Road Fill Depth (m)
980131	North Central	SR 20	208.44	Unnamed	Frazer Cr	48.0309A	Culvert	No	0	Yes	6.61	1.1	RND	CST	0.46	0.61	14.97	No	0.00	6.08	1.83
993405	North Central	SR 20	213.99	Frazer Cr	Beaver Cr	48.0309	Culvert	No	33	Yes	3.29	1.1	RND	CST	0.61	0.91	18.20	No	0.00	6.00	3.00
993815	North Central	SR 20	215.96	Summit Cr	Loup Loop Cr	49.0054	Culvert	No	33	Yes	2.17	1.1	RND	CST	0.91	0.91	114.20	No	0.00	6.80	7.00
993817	North Central	SR 20	218.48	Summit Cr	Loup Loop Cr	49.0054	Culvert	No	33	Yes	4.11	1.1	RND	CST	0.91	0.91	18.90	No	0.20	3.10	2.00
990406	North Central	SR 20	219.38	Summit Cr	Loup Loop Cr	49.0054	Culvert	No	0	Yes	5.78	1.1	RND	CST	1.37	1.37	29.10	No	1.10	18.93	6.00
991687	North Central	SR 20	220.10	Unnamed	Summit Cr	49	Culvert	No	33	Yes	4.65	1.1	RND	OTH	0.76	0.76	35.67	No	0.21	4.40	1.00
993818	North Central	SR 20	220.85	Summit Cr	Loup Loop Cr	49.0054	Culvert	No	0	No	1.22	1.1	RND	PCC	2.00	3.19	112.48	No	0.47	7.20	4.00
990247	North Central	SR 20	223.18	Little Loop Cr	Loup Loop Cr	49.0052	Culvert	No	0	No	1.22	1.1	OTH	OTH	2.00	3.19	112.48	No	1.50	4.80	18.00
990418	North Central	SR 20	224.49	Tallent Cr	Okanogan R	49.0065	Culvert	No	0	Yes	1.07	1.1	RND	PCC	1.07	1.07	22.30	No	0.00	5.40	3.00
993824	North Central	SR 20	225.60	Tallent Cr	Okanogan R	49.0065	Culvert	No	33	Yes	1.07	1.1	RND	PCC	1.52	1.52	25.92	No	0.00	1.70	1.00
990419	North Central	SR 20	226.27	Tallent Cr	Okanogan R	49.0065	Culvert	No	0	Yes	1.18	1.1	BOX	CPC	1.84	1.84	25.50	No	1.15	4.20	1.50
990420	North Central	SR 20	226.96	Tallent Cr	Okanogan R	49.0065	Culvert	No	0	Yes	1.83	1.1	RND	CST	0.91	0.91	19.10	No	0.00	5.10	0.50
990421	North Central	SR 20	227.22	Tallent Cr	Okanogan R	49.0065	Culvert	No	33	Yes	0.91	1.1	RND	CST	0.91	0.91	19.10	No	0.00	1.70	5.00
990421	North Central	SR 20	227.22	Tallent Cr	Okanogan R	49.0065	Culvert	No	33	Yes	0.61	1.1	BOX	OTH	0.61	0.61	18.40	No	0.00	4.70	0.50
990421	North Central	SR 20	227.22	Tallent Cr	Okanogan R	49.0065	Culvert	No	33	Yes	0.76	1.1	BOX	CST	0.76	0.76	17.80	No	0.00	3.30	0.50
990421	North Central	SR 20	263.40	Bonaparte Cr	Okanogan R	49.0246	Culvert	No	33	Yes	3.89	1.1	BOX	CPC	3.06	3.06	29.96	No	0.00	2.30	4.00
990421	North Central	SR 20	263.62	Bonaparte Cr	Okanogan R	49.0246	Culvert	No	33	Yes	4.21	1.1	BOX	CPC	3.06	3.06	28.82	No	0.23	2.27	3.50
990422	North Central	SR 20	264.08	Bonaparte Cr	Okanogan R	49.0246	Culvert	No	33	Yes	4.89	1.1	BOX	CPC	3.06	3.06	29.91	No	0.28	3.92	4.00
990425	North Central	SR 20	265.57	Unnamed	Bonaparte Cr	49	Culvert	No	0	Unknown		1.1	RND	PCC	0.61	0.61	25.30	No	0.00	13.90	1.50
990430	North Central	SR 20	266.09	Bonaparte Cr	Okanogan R	49.0246	Culvert	No	33	No		1.1	BOX	CPC	3.05	1.84	28.70	No	0.32	2.30	3.50
990431	North Central	SR 20	266.22	Bonaparte Cr	Okanogan R	49.0246	Culvert	No	67	Yes	2.14	1.1	BOX	CPC	3.05	1.85	25.78	No	0.00	2.77	3.00
990435	North Central	SR 20	278.60	Bonaparte Cr	Okanogan R	49.0246	Culvert	No	37	Yes	7.9	1.1	BOX	CPC	2.15	1.82	15.10	No	0.65	1.70	1.50
990437	North Central	SR 20	279.30	Bonaparte Cr	Okanogan R	49.0246	Culvert	No	0	Yes	9.57	1.1	BOX	CPC	2.15	1.84	29.40	No	0.00	1.70	1.50
990443	North Central	SR 20	283.52	Unnamed	Bonaparte Cr	49	Culvert	No	67	Yes		1.1	RND	CST	0.76	0.76	23.00	No	0.00	2.20	3.00
990447	North Central	SR 20	284.59	Unnamed	Bonaparte Cr	49	Culvert	No	67	Yes		1.1	RND	PCC	0.76	0.76	23.00	No	0.00	2.40	3.00
990993	North Central	SR 243	25.29	Unnamed	Columbia R	41	Culvert	No	0	No		1.1	RND	CST	1.07	1.07	22.86	Unk	4.57	8.00	
991762	North Central	SR 26	1.79	Sand Hollow Cr	Columbia R	41.2151	Culvert	No	0	Yes	13.03	2.2	RND	PCC	1.22	1.22	76.20	Unk	2.04	3.00	
991762	North Central	SR 26	1.79	Sand Hollow Cr	Columbia R	41.2151	Culvert	No	0	Yes	13.03	1.2	RND	CAL	1.22	1.22	76.20	No	2.13	3.00	
990570	North Central	SR 26	29.87	Crab Cr Wasteway	Lower Crab Cr	41	Culvert	No	33	Yes		1.1	RND	CAL	2.50	2.50	20.53	No	0.00	0.82	
990571	North Central	SR 26	29.95	Crab Cr Wasteway	Lower Crab Cr	41	Culvert	No	0	Yes		1.1	RND	CST	1.10	1.10	26.82	No	0.00	9.00	
991776	North Central	SR 28	2.31	Unnamed	Columbia R	44	Culvert	No	33	Yes		1.1	RND	PCC	1.22	1.22	38.41	No	0.00	6.80	3.00
991947	North Central	SR 28	2.32	Sand Canyon Springs	Columbia R	44.0756	Culvert	No	0	Yes	8.95	1.1	BOX	CPC	1.52	1.52	19.81	Yes	1.95	5.70	1.22
997474	North Central	SR 28	7.44	Unnamed	Columbia R	44	Culvert	No	0	No		1.1	RND	PCC	0.46	0.46	21.80	No	0.35	4.80	2.00
990882	North Central	SR 28	22.72	Lynch Coulee	Columbia R	41	Culvert	Yes	0	Yes	9.06	1.1	BOX	PCC	3.66	3.05	113.39	No		3.00	
997814	North Central	SR 28	40.66	Unnamed	Unamed	41	Culvert	No	0	Yes											
990282	North Central	US 2	70.21	Mill Cr	Nason Cr	45.0956	Culvert	No	0	Yes	19.09	1.1	RND	CST	3.66	3.66	55.67	No	0.49	0.05	7.00
992755	North Central	US 2	82.06	Unamed	Nason Cr	45	Culvert	No	0	Yes	4.23	1.1	RND	CST	0.91	0.91		No	1.50	5.00	
996888	North Central	US 2	107.43	Unamed	Weiniche R	45.0214	Culvert	No	0	No		1.1	OTH	OTH	1.90	0.45	115.91	No	0.00	5.21	0.50
996890	North Central	US 2	111.46	Unamed	Weiniche R	45.0072	Culvert	No	0	Yes		1.1	ARCH	CST	1.84	1.17	37.47	Yes	3.50	0.99	1.50
991948	North Central	US 97	152.92	Mill Cr	Svaak Cr	39.1188	Culvert	No	0	Yes	6.11	1.1	RND	PCC	0.91	0.91	111.86	No	0.37	5.41	1.22
990202	North Central	US 97	158.32	Iron Cr	Svaak Cr	39.1209	Culvert	Yes	67	Yes		1.1	SQSH	SPS	2.57	1.81	24.00	No	0.00	3.50	2.00
990413	North Central	US 97	159.26	Svaak Cr	Yakima R	39.1157	Culvert	No	0	Yes	9.02	1.1	SQSH	SPS	2.69	1.83	36.09	No	0.00	1.20	2.00
990414	North Central	US 97	159.67	Svaak Cr	Yakima R	39.1157	Culvert	No	0	Yes	10.74	1.1	SQSH	SPS	2.71	1.86	36.09	No	0.97	2.05	6.00
990444	North Central	US 97	164.70	Tonsen Cr	Peshastin Cr	45.0346	Culvert	No	0	Yes	5.61	1.2	RND	PCC	0.61	0.61	67.06	No	0.60	5.00	8.00
990444	North Central	US 97	164.70	Tonsen Cr	Peshastin Cr	45.0346	Culvert	No	0	Yes	5.61	2.2	RND	PCC	0.61	0.61	67.06	No	0.00	5.00	8.00
990445	North Central	US 97	165.77	Tonsen Cr	Peshastin Cr	45.0346	Culvert	No	0	Yes	7.5	1.1	RND	CST	1.07	1.07	36.58	No	0.24	4.50	4.50
990446	North Central	US 97	166.23	Tonsen Cr	Peshastin Cr	45.0346	Culvert	No	0	Yes	8.12	1.1	RND	CST	1.07	1.07	30.48	No	0.52	3.50	3.00
997564	North Central	US 97	232.94	Unamed	Columbia R	44	Culvert	No	0	Yes		1.1	ELL	SPA	2.59	3.43	40.97	No	0.86	6.55	8.00

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Site Id	WSDOT District	Road	Mile Post	Stream	Tributary to	WRIA	Feature Type	Fishway attached to the Feature	% Fish Pass (>=200 m)	Significant Reach	PI	Culvert No ¹	Shape	Material	Span (m)	Rise (m)	Length (m)	Bed Material Present	Water Surface Difference Drop (m)	Slope	Road Fill Depth (m)
997566	North Central	US 97	235.30	Beebe Cr	Columbia R	47	Culvert	No	33	Yes			1.1 RND	CST	1.22	1.22	43.51	No	0.08	2.13	3.50
997567	North Central	US 97	235.65	Unnamed	Columbia R	47	Culvert	No	33	Yes			1.1 RND	CAL	0.91	0.91	34.28	No	0.12	2.65	5.00
992051	North Central	US 97	260.28	Swamp Cr	Columbia R	49	Culvert	No	0	Yes			1.1 RND	PCC	1.24	1.24		No	0.00		
993915	North Central	US 97	261.24	Johnson Cr	Columbia R	49	Culvert	No	0	Yes	5.17		1.1 BOX	CPC	2.44	2.42	91.90	No	0.00	2.20	15.00
990217	North Central	US 97	299.03	Unnamed	Okanogan R	49	Culvert	No	33	Yes	4.88		1.1 SOSH	CST	1.90	1.00	21.64	No	0.34	5.00	
993964	North Central	US 97	324.67	Mosquito Cr	Okanogan R	49.0321	Culvert	No	67	Yes			1.1 RND	PCC	2.13	2.13	16.70	No	0.04	1.40	1.50
991643	North Central	US 97	325.87	Unnamed	Okanogan R	49	Culvert	No	67	Yes			1.1 RND	PCC	1.22	1.22	28.10	No	0.09	2.88	3.00
993971	North Central	US 97	328.16	Whistler Canyon Cr	Okanogan R	49	Culvert	No	33	Yes	4.44		1.1 RND	PCC	0.91	0.91	35.30	No	0.00	1.40	

There are 1538 WSDOT barrier features inventoried as of March 2006. The number of records in this spreadsheet exceeds 1538 due to the existence of multiple pipes at some crossings, referred in this appendix as Culvert Numbers (see explanation below).

¹ The culvert number identifies individual culverts at multiple stream crossings. Format X.Y, where X = specific culvert number, and Y = total number of culvert at a crossing. For example, in a triple culvert crossing, the first pipe would be 1.3, the second 2.3, and the third 3.3.

Culvert Material

PCC - precast concrete
 CST - corrugated steel
 SST - smooth steel
 CAL - Corrugated aluminum
 SPS - structural plate steel
 PVC - plastic
 TMB - timber
 MRY - masonry
 OTH - other
 SPA - structural plate aluminum
 CPC - cast in place concrete

Culvert Shape:

ARCH - bottomless arch
 SOSH - squash
 RND - round
 BOX - rectangular
 ELL - ellipse
 OTH - other